Additional information on this product and answers to frequently asked questions can be found at our Customer Support Website.

http://www.sony.net/

Printed using VOC (Volatile Organic Compound)-free vegetable oil based ink.

 Printed in Thailand

4183856120

NEX-3/NEX-5

SONY

4-183-856-**12**(1)

Interchangeable Lens Digital Camera

Instruction Manual

α

E-mount

NEX-3/NEX-3C/NEX-5/NEX-5C

English

Owner's Record

The model and serial numbers are located on the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. NEX-3/3C/ NEX-5/5C

Serial No. ______________________________

WARNING

To reduce fire or shock hazard, do not expose the unit to rain or moisture.

IMPORTANT SAFETY INSTRUCTIONS -SAVE THESE INSTRUCTIONS DANGER -TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS

If the shape of the plug does not fit the power outlet, use an attachment plug adaptor of the proper configuration for the power outlet.

CAUTION

Battery pack

If the battery pack is mishandled, the battery pack can burst, cause a fire or even chemical burns. Observe the following cautions.

- Do not disassemble.
- Do not crush and do not expose the battery pack to any shock or force such as hammering, dropping or stepping on it.
- Do not short circuit and do not allow metal objects to come into contact with the battery terminals.
- Do not expose to high temperature above 60°C (140°F) such as in direct sunlight or in a car parked in the sun.
- Do not incinerate or dispose of in fire.
- Do not handle damaged or leaking lithium ion batteries.

- Be sure to charge the battery pack using a genuine Sony battery charger or a device that can charge the battery pack.
- Keep the battery pack out of the reach of small children.
- Keep the battery pack dry.
- Replace only with the same or equivalent type recommended by Sony.
- Dispose of used battery packs promptly as described in the instructions.

Battery charger

Even if the CHARGE lamp is not lit, the battery charger is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (wall socket). If some trouble occurs while using the battery charger, immediately shut off the power by disconnecting the plug from the wall outlet (wall socket).

When a power cord (mains lead) is supplied, the power cord (mains lead) can be used with this unit only, and should not be used with any other unit.

For Customers in the U.S.A. and Canada

RECYCLING LITHIUM-ION BATTERIES

Lithium-Ion batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.

For more information regarding recycling of rechargeable batteries, call toll free
1-800-822-8837, or visit http://www.rbrc.org/

Caution: Do not handle damaged or leaking Lithium-Ion batteries.

Battery pack

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

For Customers in the U.S.A.

UL is an internationally recognized safety organization.
The UL Mark on the product means it has been UL Listed.

If you have any questions about this product, you may call:
Sony Customer Information Center
1-800-222-SONY (7669)
The number below is for the FCC related matters only.

Regulatory Information

Declaration of Conformity

Trade Name: SONY
Model No.: NEX-3
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
San Diego, CA 92127 U.S.A.
Telephone No.: 858-942-2230

This device complies with Part15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Declaration of Conformity

Trade Name: SONY
Model No.: NEX-5
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
San Diego, CA 92127 U.S.A.
Telephone No.: 858-942-2230

This device complies with Part15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

The supplied interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For Customers in Europe

Notice for the customers in the countries applying EU Directives
The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

This product has been tested and found compliant with the limits set out in the EMC Directive for using connection cables shorter than 3 meters (9.8 feet).

Attention
The electromagnetic fields at the specific frequencies may influence the picture and sound of this unit.

Notice
If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste.
On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead. By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.
In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.
For all other batteries, please view the section on how to remove the battery from the product safely.
Hand the battery over to the applicable collection point for the recycling of waste batteries.
For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Notice for customers in the United Kingdom

A moulded plug complying with BS 1363 is fitted to this equipment for your safety and convenience.
Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS 1362, (i.e., marked with an or mark) must be used.
If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

Table of contents

Checking the functions available

Importing images to the computer

Others

This instruction manual is for models NEX-3/3C and NEX-5/5C. The NEX-5/5C is used for illustrations in this manual, unless otherwise specified.
The differences between each model are as follows:

Model	Movie file format	Remote control
NEX-5/5C*	AVCHD**/MPEG-4	Available
NEX-3/3C*	MPEG-4	Not available

* NEX-5C/3C are not compatible with Eye-Fi.
** To check whether the camera is 1080 60i-compatible or 1080 50i-compatible, check for the following marks on the bottom of the camera.
1080 60i-compatible camera: 60i
1080 50i-compatible camera: 50i

This manual covers several models supplied with different lenses.
The model name varies depending on the supplied lens.

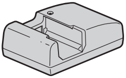
Model name	Lens
NEX-5A/5CA/3A/3CA	E16 mm
NEX-5D/5CD/3D/3CD	E18 – 55 mm and E16 mm
NEX-5H/5CH	E18 – 200 mm
NEX-5K/5CK/3K/3CK	E18 – 55 mm

Checking the accessories supplied

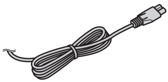
First check the model name of your camera (page 9). The accessories supplied differ depending on the model.
The number in parentheses indicates the number of pieces.

Common accessories

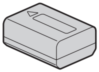
• Battery charger BC-VW1 (1)



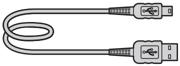
• Power cord (mains lead) (1) (not supplied in the U.S.A. and Canada)



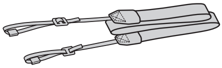
• Rechargeable battery pack NP-FW50 (1)



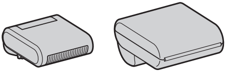
• USB cable (1)



• Shoulder strap (1)



• Flash (1)/Flash case (1)



• CD-ROM (1)
  – Application Software for α camera
  – α Handbook
• Instruction Manual (This manual) (1)

NEX-5A/5CA/3A/3CA

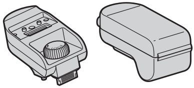
• E16 mm single focus lens/Lens cap (1) (attached to the camera)

NEX-5D/5CD/3D/3CD

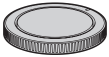
• E16 mm single focus lens/Lens cap/Lens rear cap (1)
• E18 – 55 mm zoom lens/Lens cap (1) (attached to the camera)/Lens hood (1)

NEX-5H/5CH

• E18 – 200 mm zoom lens/Lens cap/Lens rear cap (1) (attached to the camera)/Lens hood (1)
• Extender for Flash (1)/Extender case (1)



• Body cap (1) (attached to the camera)



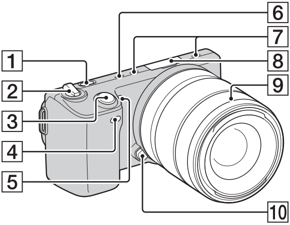
NEX-5K/5CK/3K/3CK

- E18 – 55 mm zoom lens/Lens cap (1) (attached to the camera)/Lens hood (1)

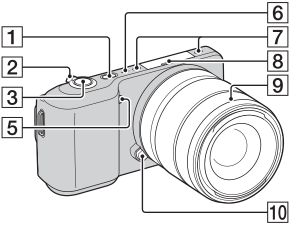
Identifying parts

See the pages in parentheses for details of operation.

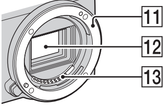
NEX-5/5C



NEX-3/3C



When the lens is removed (NEX-5/5C/3/3C)



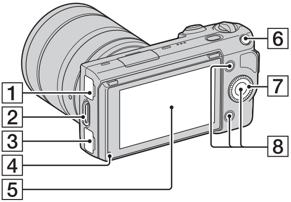
1. ▶ (Playback) button (29)
2. ON/OFF (Power) switch (25)
3. Shutter button (28)
4. Remote sensor
5. AF illuminator/Self-timer lamp/ Smile Shutter lamp
6. Speaker
7. Microphone*
8. Smart Accessory Terminal (23)
9. Lens (19)
10. Lens release button (20)
11. Mount
12. Image sensor**
13. Lens contact**

* Do not cover this part during movie recording.

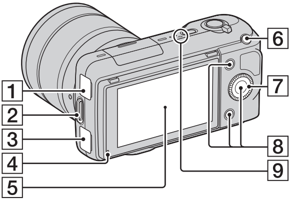
** Do not touch this part directly.

Preparing the camera

NEX-5/5C

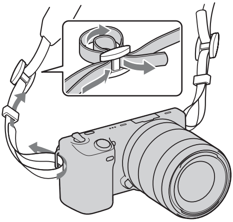


NEX-3/3C



1 (USB) terminal

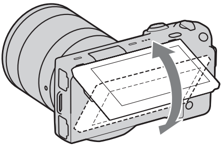
2 Hook for shoulder strap
Attaching the shoulder strap is recommended not to drop the camera.



3 HDMI terminal (49)

4 Light sensor

5 LCD monitor
The tilting LCD monitor of the camera allows flexible shooting positions.



6 MOVIE button (28)

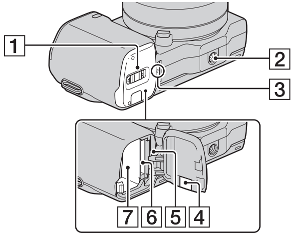
7 Control wheel (32)

8 Soft keys (33)

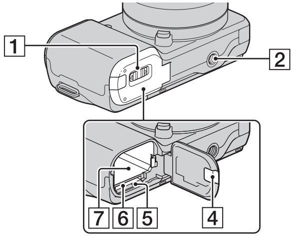
9 Image sensor position mark

Preparing the camera

NEX-5/5C



NEX-3/3C



1 Battery/Memory card cover (17, 21)

2 Tripod receptacle
- Use a tripod with a screw length of less than 5.5 mm (7/32 inch). You will be unable to firmly secure the camera to tripods having screws longer than 5.5 mm (7/32 inch), and may damage the camera.

3 ⊖ Image sensor position mark

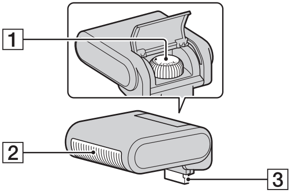
4 Connection plate cover
For using the AC-PW20 AC Adaptor (sold separately)

5 Access lamp (22)

6 Memory card insertion slot (21)

7 Battery compartment (17)

Flash



1 Screw

2 Flash

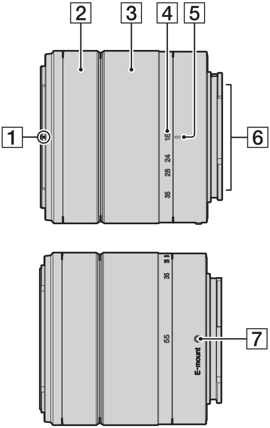
3 Connector*

* Do not touch this part directly.

Lens

On the E18 – 200 mm lens, refer to the instruction manual of the E18 – 200 mm lens (supplied).

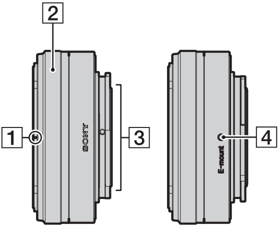
E18 – 55 mm F3.5-5.6 OSS (supplied with NEX-5D/5CD/5K/5CK/3D/3CD/3K/3CK)



1 Hood index
2 Focusing ring
3 Zooming ring
4 Focal-length scale
5 Focal-length index
6 Lens contacts*
7 Mounting index

* Do not touch this part directly.

E16 mm F2.8 (supplied with NEX-5A/5CA/3A/3CA)



1 Converter index*
2 Focusing ring
3 Lens contacts**
4 Mounting index

* A converter is sold separately.
** Do not touch this part directly.

Preparing the battery pack

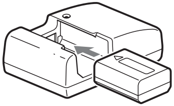
When using the camera for the first time, be sure to charge the NP-FW50 "InfoLITHIUM" battery pack (supplied).

Charging the battery pack

The "InfoLITHIUM" battery pack can be charged even when it has not been fully depleted. It can also be used when it has not been fully charged.

1 Insert the battery pack onto the battery charger.

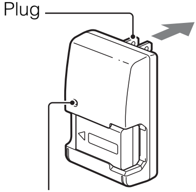
- Push the battery pack until it clicks.



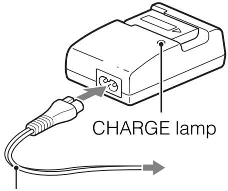
2 Connect the battery charger to the wall outlet (wall socket).

- The CHARGE lamp turns off when charging is finished.
- Time required to charge a fully depleted battery pack at a temperature of 25 °C (77 °F) is about 250 minutes.

For the U.S.A and Canada



For countries/regions other than the U.S.A. and Canada



Notes

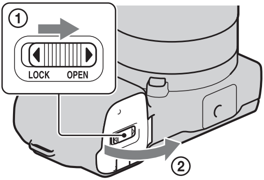
- The charging time differs depending on the remaining capacity of the battery pack or charging conditions.
- We recommend charging the battery pack in an ambient temperature of between 10 °C to 30 °C (50 °F to 86 °F). You may not be able to efficiently charge the battery pack outside of this temperature range.
- Connect the battery charger to the nearest wall outlet (wall socket).
- Do not try to charge the battery pack again right after it has been charged, or when it has not been used after being charged. Doing so will affect the performance of the battery pack.

Using your camera abroad — Power source

You can use your camera and battery charger, and the AC-PW20 AC Adaptor (sold separately) in any countries/regions where the power supply is within 100 V to 240 V AC, 50 Hz/60 Hz.
Do not use an electronic transformer (travel converter), as this may cause a malfunction.

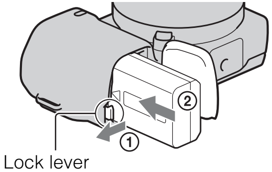
Inserting the charged battery pack

1 While sliding the cover open lever, open the cover.

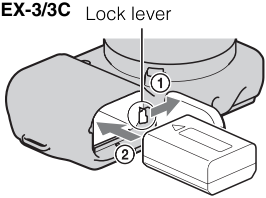


2 Firmly insert the battery pack all the way while pressing the lock lever with the tip of the battery.

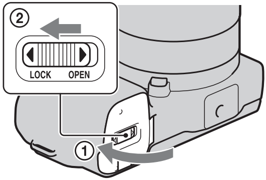
NEX-5/5C



NEX-3/3C



3 Close the cover.



Checking the remaining battery level

Check the level with the following indicators and percent figures displayed on the LCD monitor.

Battery level						"Battery exhausted."
	High → Low					You cannot shoot any more image.

Note

• The displayed level may not be correct under certain circumstances.

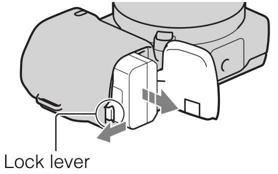
What is an "InfoLITHIUM" battery pack?

An "InfoLITHIUM" battery pack is a lithium-ion battery pack that has functions for exchanging information related to operating conditions with your camera. Using the "InfoLITHIUM" battery pack, the remaining battery time in percent figures is displayed according to the operating conditions of your camera.

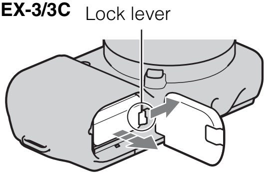
Removing the battery pack

Turn off the camera and slide the lock lever in the direction of the arrow. Be careful not to drop the battery pack.

NEX-5/5C



NEX-3/3C

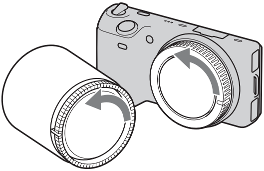


Attaching/removing the lens

The camera will come with the lens attached (except for the NEX-5H/5CH). Refer to the steps below when attaching other lenses.

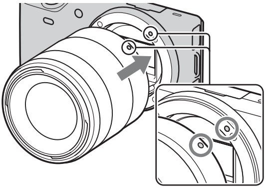
1 If the body cap or the packaging lid is attached, remove it from the camera or the lens.

- Quickly change the lens somewhere away from dusty locations so as to keep dust or debris from getting inside the camera.



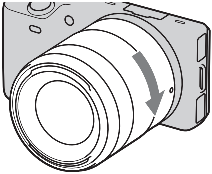
2 Mount the lens by aligning the white index marks on the lens and the camera.

- Hold the camera's face downward to prevent the dust from entering into the camera.



3 While pusing the lens lightly toward the camera, turn the lens clockwise until it clicks into the locked position.

- Be sure to put the lens on straight.

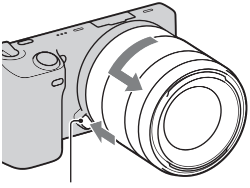


Notes

- When attaching a lens, do not press the lens release button.
- Do not use force when attaching a lens.
- The Mount Adaptor (sold separately) is required to use an A-mount lens (sold separately). For details, refer to the operating manual supplied with the Mount Adaptor.

Removing the lens

1 Press the lens release button all the way in and turn the lens counterclockwise until it stops.

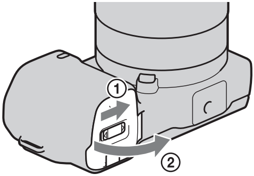


Notes

- When changing the lens, if dust or debris gets inside the camera and adheres to the surface of the image sensor (the part that acts as the film), it may appear on the image, depending on the shooting environment. The camera vibrates slightly when it is turned off, due to the anti-dust function, to prevent dust from adhering to the image sensor. However, attach or remove the lens quickly somewhere away from dusty locations.
- Do not leave the camera with the lens removed.

Inserting a memory card (sold separately)

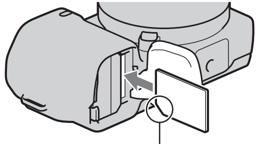
1 Open the cover.



2 Insert a memory card.

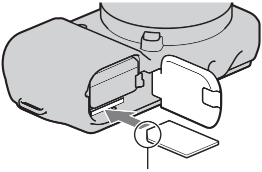
- Insert the memory card until it clicks as illustrated.

NEX-5/5C



Check on the direction of the notched corner.

NEX-3/3C



Check on the direction of the notched corner.

3 Close the cover.

Memory cards that you can use

You can use following memory cards with this camera: "Memory Stick PRO Duo" media, "Memory Stick PRO-HG Duo" media, SD memory card, SDHC memory card, and SDXC memory card. You cannot use MultiMediaCard.
For recording movies, it is recommended that you use following memory cards. "Memory Stick PRO Duo" media and "Memory Stick PRO-HG Duo" media are both called as "Memory Stick PRO Duo" media, and SD memory card, SDHC memory card and SDXC memory card are all called as "SD card" in this manual.

- MEMORY STICK PRO DUO (Mark2) ("Memory Stick PRO Duo" media (Mark2))
- MEMORY STICK PRO-HG DUO ("Memory Stick PRO-HG Duo" media)
- SD memory card, SDHC memory card, SDXC memory card (Class 4 or more)

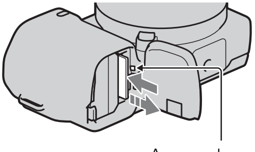
Note

- Images recorded on an SDXC memory card cannot be imported to or played on computers or AV devices that are not compatible with exFAT. Make sure that the device is compatible with exFAT before connecting it to the camera. If you connect your camera to an incompatible device, you may be prompted to format the card. Never format the card in response to this prompt, as doing so will erase all data on the card. (exFAT is the file system used on SDXC memory cards.)

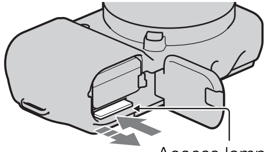
Removing the memory card

Open the cover, make sure that the access lamp is not lit, and push the memory card once.

NEX-5/5C



NEX-3/3C



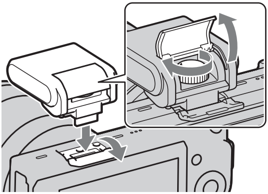
Note

- When the access lamp is lit, do not remove the memory card or the battery pack, or turn off the power. The data may be corrupted.

Attaching the flash

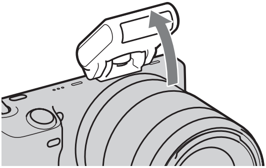
When you want to use a flash during shooting, attach the flash device (supplied).
The flash is enabled when it is raised, and disabled when lowered.

1 Attach the flash to the Smart Accessory Terminal of the camera.
- When using the E18 – 200 mm lens, you must attach the extender (page 24).



2 Fasten the screw to secure the flash.

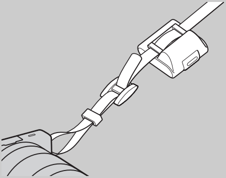
3 To fire the flash, raise the flash first.
- Lower the flash when you do not intend to use it.



Notes

- The power for the flash is provided from the camera. When the camera is charging the flash, ⚡● blinks on the LCD monitor. You cannot press the shutter button when this icon is blinking.
- Plug the flash fully into the accessory terminal of the camera, and fasten the screw securely. Make sure that the flash is attached to the camera securely.

Carrying the flash



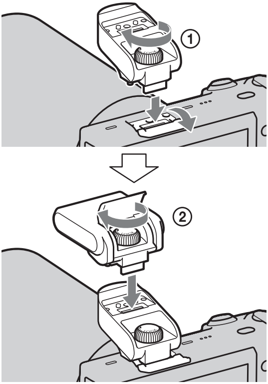
The flash case can be conveniently attached to the shoulder strap.
Put the flash in the case when you are not using it to protect it from harm.

Attaching the extender (when using the E18 – 200 mm lens)

If you attach the flash directly to the camera, images will be partly shadowed by the lens. To avoid this situation, attach the extender.

① Attach the extender to the camera securely.

② Attach the flash to the extender and fasten the screw.



Note

- Attach only the supplied flash to the extender.

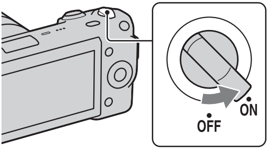
Turning on the camera and setting up the date

When you turn on the camera for the first time, the screen to set date and time appears.

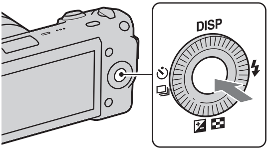
1 Set the power switch to ON to turn on the camera.

The screen to set date and time appears.

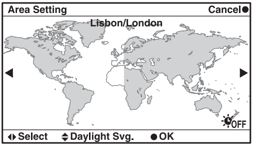
- To turn off the camera, set the power switch to OFF.



2 Press the center of the control wheel to confirm [OK].



3 Select your area by pressing the right or left of the control wheel and press the center.

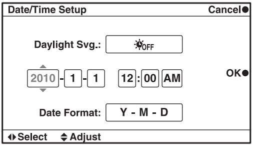


4 Press the left or right of the control wheel to select each item, and press the top or bottom, or turn it to select the numeric value.

Daylight Svg.: Turns on or off the daytime saving time setting.

Date Format: Selects the format to display date.

- Midnight is indicated as 12:00 AM, and noon as 12:00 PM.



5 Repeat step 4 to set other items, then press the center of the control wheel.

Note

- You cannot superimpose the date on images on this camera. Using "PMB" stored on the CD-ROM (supplied), you can save or print images with date. Refer to "PMB Help" for more details (page 60).

Resetting the date and time/Checking the current clock setting

Press [Menu], then select [Setup] → [Date/Time Setup] (page 32, 54).

Maintaining the date and time setting

This camera has an internal rechargeable battery for maintaining the date and time and other settings regardless of whether the power is on or off, or the battery is installed or not. For details, see page 74.

Shooting still images

In the i📷 (Intelligent Auto) mode, the camera analyzes the subject, and allows you to shoot with appropriate settings.

1 Set the power switch to ON to turn on the camera.

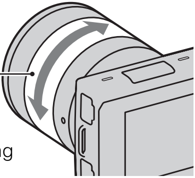
2 Point the camera to the subject.

When the camera recognizes the scene, the Scene Recognition icon and guide appear on the LCD monitor: (Night View), (Tripod Night View), (Night Portrait), (Backlight), (Backlight Portrait), (Portrait), (Landscape), or (Macro).



Scene Recognition icon and guide

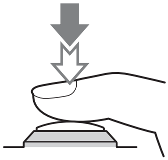
3 When using a zoom lens, turn the zoom ring, then decide on your shot.



Zoom ring

4 Press the shutter button halfway down to focus.

When the focus is confirmed, beeps sound and ● lights up.





Focus indicator

5 Press the shutter button fully down to shoot.

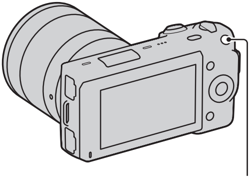
Recording movies

1 Set the power switch to ON to turn on the camera.

2 Point the camera to the subject.

3 Press the MOVIE button to start recording.

Focus and brightness are adjusted automatically.
If you press the shutter button halfway down during recording, you will be able to focus more quickly.



MOVIE button

4 Press the MOVIE button again to stop recording.

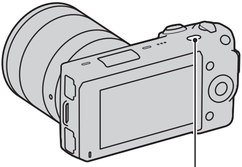
Notes

- The sound of the camera and the lens in operation might be recorded while recording a movie. You can disable the sound recording by selecting [Menu] → [Setup] → [Movie Audio Rec] → [Off] (page 32, 54).
- The angle of view of movies is narrower than that of still images. After you press the MOVIE button, the camera shows the actual range to be recorded by displaying an empty frame on the screen.

Playing back images

1 Press the ▶ (playback) button.

The last recorded image is displayed on the LCD monitor.
A still image is displayed in the default setting.


▶ (playback) button

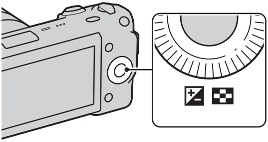
Selecting the image

Turn the control wheel.

Playing back movies

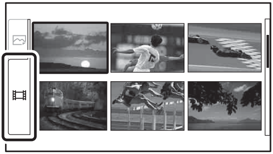
1 Press ▦ (Image Index) on the control wheel in playback mode.

Six images are displayed.



Mastering the basic operation

2 Press the left side of the control wheel repeatedly to select 🎞 (movie), and press the center.



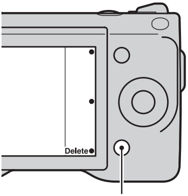
3 Turn the control wheel to select the desired movie, and press the center.

During movie playback	Control wheel operation
To pause/resume	Press the center.
To fast-forward	Press the right, or turn it right.
To fast-rewind	Press the left, or turn it left.
To slow-forward (NEX-5/5C only)	Turn it right during pause.
To slow-reverse (NEX-5/5C only)	Turn it left during pause.
To adjust sound volume	Press the bottom → top/bottom.

Deleting images

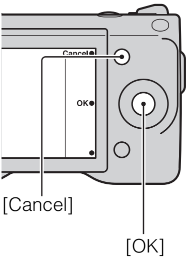
You can delete the image that is currently displayed.

1 Display the desired image, and press [Delete].



2 Press the center of the control wheel to confirm [OK].

Press [Cancel] to quit the operation.



To delete several images

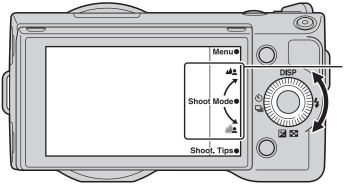
Select [Menu] → [Playback] → [Delete] to select and delete specific images at the same time.

Using the control wheel and soft keys

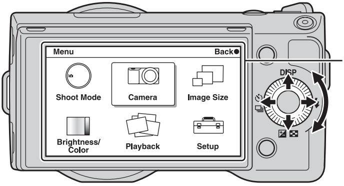
The control wheel and soft keys allow you to use various functions of the camera.

Control wheel

When shooting, DISP (Display Contents), ϟ (Flash Mode), ± (Exposure Comp.) and ◌/▭ (Drive Mode) functions are assigned to the control wheel. When playing back, DISP (Display Contents) and ▦ (Image Index) functions are assigned to the control wheel.
When you turn or press the right/left/top/bottom parts of the control wheel following the on-screen display, you can select setting items. Your selection is determined when you press the center of the control wheel.



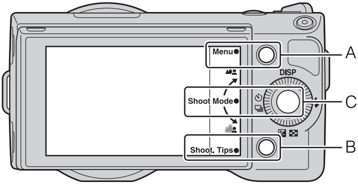
The arrow means you can turn the control wheel.



When options are displayed on the screen, you can browse through them by turning or pressing the top/bottom/left/right parts of the control wheel. Press the center to make your choice.

Soft keys

The soft keys have different roles, depending on the context.
The assigned role (function) of each soft key is shown on the screen.
To use the function shown at the upper right corner of the screen, press soft key A. To use the function shown at the lower right corner of the screen, press soft key B. To use the function shown at the center, press the center of the control wheel (soft key C).
In this handbook, the soft keys are indicated by the icon or the function shown on the screen.



In this case, soft key A works as the [Menu] button, and soft key B as the [Shoot. Tips] button. Soft key C works as the [Shoot Mode] button.

Using the guide function of the camera

The camera provides various "Help Guides" which explain the functions, and "Shooting Tips" which introduce tips for better shooting. Use these guides to make better use of the camera.

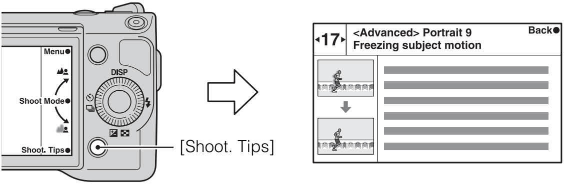
Help Guides

The camera displays the Help Guide to explain the selected function, when you change the setting, etc.
You can hide the Help Guides by selecting [Menu] → [Setup] → [Help Guide Display] → [Off].

Shooting tips

The camera displays the shooting tips in accordance with the shooting mode selected.

① When [Shoot. Tips] is displayed at the right bottom corner of the screen, press the button at the right bottom (page 33).
A shooting tip in accordance with the current subject appears automatically.



② Press the left or right of the control wheel and search for the desired shooting tip.
- Turn the control wheel to scroll the text up and down.

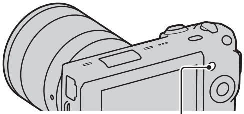
To access all shooting tips

You can search through all shooting tips from the menu.
①[Menu] → [Camera] → [Shooting Tip List].
②Search for the desired shooting tips.

Defocusing the background easily (Background Defocus Control)

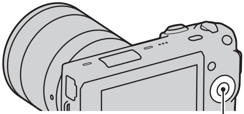
In the [Intelligent Auto] mode, you can defocus the background easily to make the subject stand out.

1 Press [Menu], then select [Shoot Mode] → (Intelligent Auto).



2 Press the center of the control wheel.

The Background Defocus screen appears.

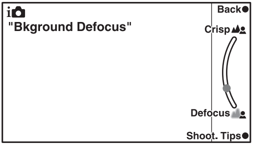


3 Defocus the background by turning the control wheel.

: Turn up to focus

: Turn down to defocus

Press [Back] to restore the original status.



Note

- The defocusing effect may not be noticeable, depending on the distance from the subject or the lens used.

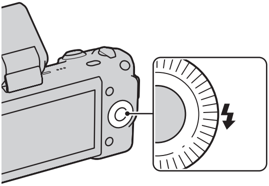
For a better result of Background Defocus

- Move closer to the subject.
- Lengthen the distance between the subject and the background.

Selecting the flash mode

1 Attach the flash (page 23).

2 Press ϟ (Flash Mode) on the control wheel.



3 Turn the control wheel to select the desired mode, and press the center.

(Flash Off): Does not fire even if the flash is raised.

AUTO **(Autoflash)**: Fires if it is dark or against light.

ϟ **(Fill-flash)**: Fires every time you trigger the shutter.

SLOW **(Slow Sync.)**: Fires every time you trigger the shutter. Slow sync shooting allows you to shoot a clear image of both the subject and the background.

REAR **(Rear Sync.)**: Fires right before the exposure is completed every time you trigger the shutter. A trailing image of the movement of the subject is captured to make more natural image.

The flash range

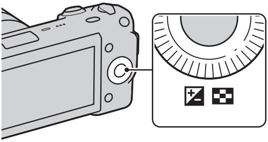
The range of the supplied flash depends on the ISO sensitivity and aperture value.

	F2.8	F3.5	F5.6
ISO200	1 – 3.5 m (3.3 – 11.6 feet)	1 – 2.8 m (3.3 – 9.2 feet)	1 – 1.8 m (3.3 – 5.9 feet)
ISO1600	2.8 – 10 m (9.2 – 32 feet)	2.3 – 8 m (7.5 – 26.2 feet)	1.4 – 5 m (4.6 – 16 feet)

Adjusting the brightness of still images (Exposure compensation)

You can adjust the exposure in 1/3 EV steps in a range of –2.0 EV to +2.0 EV.

1 Press (Exposure Comp.) on the control wheel.

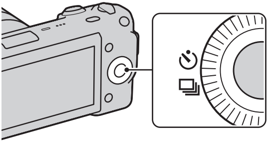


2 Turn the control wheel to select the desired value, and press the center.

When the image is too bright, set [Exposure Comp.] toward –.
When the image is too dark, set [Exposure Comp.] toward +.

Using the self-timer

1 Press / (Drive Mode) on the control wheel.



2 Turn the control wheel to select (Self-timer).

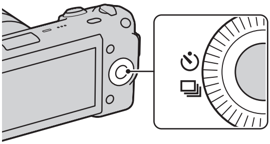
3 Press [Option], then turn the control wheel to select the desired mode and press the center.

(Self-timer: 10 Sec): Sets the 10-second delay self-timer. Use this when you want to include yourself in the picture.
To cancel the timer, press / again.
When you press the shutter button, the self-timer lamp flashes and beeps until the shutter operates.
(Self-timer: 2 Sec): Sets the 2-second delay self-timer. You can prevent blur caused by camera shake that occurs when the shutter button is pressed.

Shooting still images continuously

The camera records images continuously while you press and hold down the shutter button (max. 2.3 images per second).

1 Press / (Drive Mode) on the control wheel.



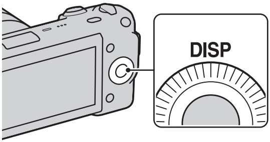
2 Turn the control wheel to select (Continuous Adv.), and press the center.

To shoot continuously at a higher speed

Select (Speed Priority Cont.) from / (Drive Mode) to shoot more images continuously (max. 7 images per second). The focus and exposure of the first shot are used for the following shots.

Changing the screen display (DISP)

1 Press DISP (Display Contents) on the control wheel.



2 Press DISP repeatedly to select the desired mode.

During shooting

Disp. Basic Info: Shows basic shooting information. Graphically shows the shutter speed and aperture value, except for when [Shoot Mode] is set to [Intelligent Auto] or [Sweep Panorama].

Display Info.: Shows recording information.

No Disp. Info.: Does not show recording information.

During playback

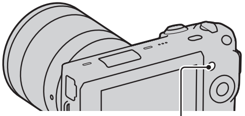
Display Info.: Shows recording information.

Histogram: Displays the luminance distribution graphically, in addition to recording information.

No Disp. Info.: Does not show recording information.

Shooting with various drive mode

1 Press [Menu].



2 Use the control wheel to select [Shoot Mode] → desired mode, and press the center.

i (Intelligent Auto): The camera evaluates the subject and makes the proper settings.

SCN (Scene Selection): Shoots with preset settings according to the subject or condition.

(Anti Motion Blur): Reduces the camera shake when shooting a slightly dark indoor scene or a telephoto.

(Sweep Panorama): Shoots with panoramic size.

M (Manual Exposure): Adjusts the aperture and shutter speed.

S (Shutter Priority): Adjusts the shutter speed to express the movement of the subject.

A (Aperture Priority): Adjusts the range in focus, or defocuses the background.

P (Program Auto): Automatic shooting that allows you to customize settings, except for the exposure (aperture and shutter speed).

Scene Selection

1 Select **SCN** (Scene Selection) (page 39).

2 Turn the control wheel to select the desired mode, and press the center.

(Portrait): Blurs away backgrounds and sharpens the subject. Expresses skin tones softly.

(Landscape): Shoots the entire range of scenery in sharp focus with vivid colors.

(Macro): Shoots close subjects such as flowers, insects, food, or small items.

(Sports Action): Shoots a moving subject at a fast shutter speed so that the subject looks as if it is standing still. The camera shoots images continuously while the shutter button is pressed.

(Sunset): Shoots the red of the sunset beautifully.

(Night Portrait): Shoots portraits in night scenes. Attach and fire the flash.

(Night View): Shoots night scenes without losing the dark atmosphere.

(Hand-held Twilight): Shoots night scenes with less noise and blur without using a tripod. A burst of shots are taken, and image processing is applied to reduce subject blur, camera shake, and noise.

Anti Motion Blur

This is suitable for indoor shots without using the flash, to reduce the subject blur.

1 Select (Anti Motion Blur) (page 39).

2 Shoot with the shutter button.

The camera combines six shots at high sensitivity into one still image, so camera shake is reduced while preventing noise.

Sweep Panorama

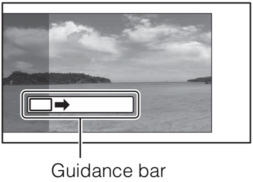
While you pan the camera, the camera shoots several images and composes them into one panoramic image.

1 Select (Sweep Panorama) (page 39).

2 Point the camera at the edge of the subject, then press the shutter button fully down.



3 Pan the camera to the end, following the guidance on the LCD monitor.



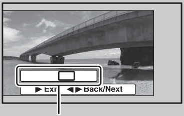
Note

- The camera continues shooting during [Sweep Panorama] recording, and the shutter keeps clicking until the end of the shooting.

Using the recording functions

Playing back scrolling panoramic images

You can scroll panoramic images from the beginning to the end by pressing the center of the control wheel while panoramic images are being displayed. Press it again to pause.



Shows the displayed area of the whole panoramic image.

- Panoramic images are played back with the supplied software "PMB" (page 60).
- Panoramic images shot with other cameras may not be displayed or scrolled correctly.

Shutter Priority

You can express the movement of a moving subject in various way by adjusting the shutter speed, for example, at the instant of the movement with high speed shutter, or as a trailing image with low speed shutter.

1 Select **S** (Shutter Priority) (page 39).

2 Turn the control wheel to select the desired value, and press the center.

Shutter speed



When a faster shutter speed is used, a moving subject such as a running person, cars, and sea spray appears as if they are stopped.



When a slower shutter speed is used, a trailing image of the movement of the subject is captured to make more natural and dynamic image.

Aperture Priority

You can adjust the range in focus, or defocuses the background.

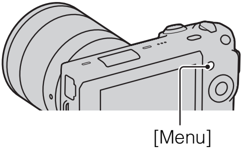
1 Select **A** (Aperture Priority) (page 39).

2 Turn the control wheel to select the desired value, and press the center.

Selecting the image size

The image size determines the size of the image file that is recorded when you take an image.
The larger the image size, the more detail will be reproduced when the image is printed on large format paper. The smaller the image size, the more images can be recorded.
In the case of movies, the larger the image size, the higher the image quality.

1 Press [Menu].



2 Use the control wheel to select [Image Size] → [Image Size], and press the center.

3 Turn the control wheel to select the desired mode, and press the center.

Still

When [Aspect Ratio] is 3:2			Usage guidelines
✓	(L: 14M)	4592 × 3056 pixels	For prints up to A3+ size
	(M: 7.4M)	3344 × 2224 pixels	For prints up to A4 size
	(S: 3.5M)	2288 × 1520 pixels	For prints L/2L size
When [Aspect Ratio] is 16:9			**Usage guidelines**
✓	(L: 12M)	4592 × 2576 pixels	For viewing on a high-definition TV
	(M: 6.3M)	3344 × 1872 pixels	
	(S: 2.9M)	2288 × 1280 pixels	

Panorama

The image size varies depending on the shooting direction (page 51).

✓	STD (Standard)	Shoots images using standard size. Vertical: 2160 × 3872 Horizontal: 8192 × 1856
	WIDE (Wide)	Shoots images using wide size. Vertical: 2160 × 5536 Horizontal: 12416 × 1856

Movie

NEX-5/5C

[AVCHD] mode		Average bit-rate	Usage guidelines
1920 × 1080		17 Mbps	Records with the highest image quality for viewing on a high-definition TV.
[MP4] mode		Average bit-rate	Usage guidelines
✓	1440 × 1080	12 Mbps	Records with high image quality for viewing on a high-definition TV.
	VGA (640 × 480)	3 Mbps	Records in the suitable size for WEB uploads.

NEX-3/3C

Image size		Average bit-rate	Usage guidelines
✓	1280 × 720 (Fine)	9 Mbps	Records with high image quality for viewing on a high-definition TV.
	1280 × 720 (Standard)	6 Mbps	
	VGA (640 × 480)	3 Mbps	Records in the suitable size for WEB uploads.

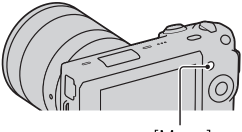
Note

- When you print still images recorded with 16:9 aspect ratio, and panoramic images, both edges may be cut off.

Focusing on the face (Face Detection)

The camera detects the faces of your subjects and adjusts the focus on the face. You can select the priority face to be focused on.

1 Press [Menu].



2 Use the control wheel to select [Camera] → [Face Detection], and press the center.

3 Turn the control wheel to select the desired mode, and press the center.

(Off): Does not use Face Detection function.
(Auto): Selects the face the camera is to automatically focus on.
(Child Priority): Detects and shoots with priority on child’s face.
(Adult Priority): Detects and shoots with priority on adult’s face.

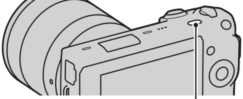
Capturing a smiling face (Smile Shutter)



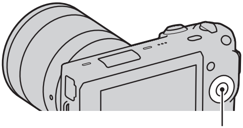
If you use the Smile Shutter function, the camera detects a smile and releases the shutter automatically.
Select [Menu] → [Camera] → [Smile Shutter] → [On], then point the camera at the subject and wait for him/her to smile.
You can also shoot by pressing the shutter button yourself.

Enlarging the playback image (Enlarge Image)

1 Press the ▶ (Playback) button to enter the playback mode.



2 Display the image you want to enlarge, then press [Enlarge] (the center of the control wheel).



3 Turn the control wheel to adjust the scaling.

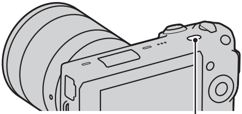
4 Press the top/bottom/right/left of the control wheel to select the portion you want to enlarge.

- To cancel the operation, press [Exit].

Using the playback functions

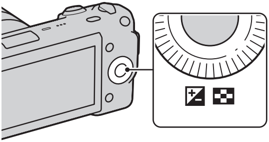
Displaying the image list

1 Press the ▶ (Playback) button to enter the playback mode.



2 Press ▦ (Image Index) on the control wheel.

Six images are displayed at a time.



3 Turn the control wheel to select an image.

- To return to the single-image screen, select the desired image, and press the center.

Switching between the still image and the movie

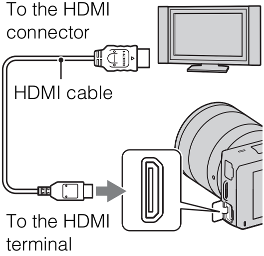


You can switch the image type on the image index easily.
Press the left side of the control wheel repeatedly to select (still image) or (movie), and press the center.
You cannot display still image and movie on the same index screen.

Viewing images on a TV

To view images recorded on the camera on a TV, an HDMI cable (sold separately) and an HD TV equipped with an HDMI connector are required.

1 Connect the camera to the TV with an HDMI cable (sold separately).



Note

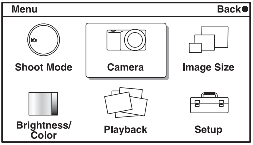
- Use an HDMI mini connector on one end (for the camera), and a plug suitable for connecting your TV on the other end.

Using your camera abroad

NEX-5/5C: To view movies shot using this camera on a TV, the camera and TV must use the same color television system.
NEX-3/3C: The camera automatically detects the color system to match that of the connected TV.

Menu list

When you press [Menu], six menu items; [Shoot Mode], [Camera], [Image Size], [Brightness/Color], [Playback], and [Setup], appear on the screen. You can set various functions in each item. Items that cannot be set in the context are displayed in gray.



Shoot Mode

Allows you to select a shooting mode, such as exposure mode, panoramic, Scene Selection.

Intelligent Auto	The camera evaluates the subject and makes the proper settings.
Scene Selection	Shoots with preset settings according to the subject or condition. (Portrait/Landscape/Macro/Sports Action/Sunset/ Night Portrait/Night View/Hand-held Twilight)
Anti Motion Blur	Reduces the camera shake when shooting a slightly dark indoor scene or a telephoto.
Sweep Panorama	Shoots with panoramic size.
Manual Exposure	Adjusts the aperture and shutter speed.
Shutter Priority	Adjusts the shutter speed to express the movement of the subject.
Aperture Priority	Adjusts the range in focus, or defocuses the background.
Program Auto	Automatic shooting that allows you to customize settings, except for the exposure (shutter speed and aperture).

Camera

Allows you to set shooting functions, such as continuous shooting, self-timer, and flash.

Drive Mode	Selects the drive mode, such as continuous shooting, self-timer, or bracket shooting. (Single-shot Adv./Continuous Adv./Speed Priority Cont./Self-timer/Self-timer(Cont.)/ Bracket: Cont./ Remote Cdr.*)
Flash Mode	Selects the method used to fire the flash. (Flash Off/Autoflash/Fill-flash/Slow Sync./Rear Sync.)
AF/MF Select	Selects auto focusing or manual focusing. (Autofocus/DMF/Manualfocus)
Autofocus Area	Selects the area to be focused on. (Multi/Center/Flexible Spot)
Autofocus Mode	Selects the autofocus method. (Single-shot AF/Continuous AF)
Precision Dig. Zoom	Sets the digital zoom when a single focus lens is used.
Face Detection	Detects people's faces automatically, and adjusts focus and exposure to suit the faces. (Off/Auto/Child Priority/Adult Priority)
Smile Shutter	Each time the camera detects a smile, the camera releases the shutter automatically. (Off/On)
Smile Detection	Sets the sensitivity of the Smile Shutter function for detecting smiles. (Big Smile/Normal Smile/Slight Smile)
Panorama Direction	Selects the direction to pan the camera when shooting panoramic images. (Right/Left/Up/Down)
Shooting Tip List	Allows you to access all shooting tips.
Display Contents	Switches the information to be displayed on the shooting screen. (Display Info./No Disp. Info./Disp. Basic Info)

* NEX-5/5C only

Image Size

Allows you to set the image size and aspect ratio, etc.

Still	
Image Size	Selects the image size. (3:2: L: 14M/ M: 7.4M/ S: 3.5M 16:9: L: 12M/ M: 6.3M/ S: 2.9M)
Aspect Ratio	Selects the aspect ratio. (3:2/16:9)
Quality	Selects the compression format. (RAW/RAW & JPEG/Fine/Standard)
Panorama	
Image Size	Selects the image size. (Standard/Wide)
Movie	
File Format*	Selects the movie recording format. (AVCHD/MP4)
Image Size	Selects the image size.

* NEX-5/5C only

Brightness/Color

Allows you to make brightness settings such as metering mode, and color settings such as white balance.

Exposure Comp.	Compensates for the brightness of the entire image. (–2.0EV to +2.0EV)
ISO	Sets the ISO sensitivity. (ISO AUTO/200 - 12800)
White Balance	Adjusts the color tones according to the ambient light conditions. (Auto WB/Daylight/Shade/Cloudy/Incandescent/Fluorescent/Flash/C.Temp./Filter/Custom/Custom Setup)
Metering Mode	Selects the method used for measuring the brightness. (Multi/Center/Spot)
Flash Compensation	Adjusts the amount of flash light. (–2.0EV to +2.0EV)
DRO/Auto HDR	Corrects the brightness or contrast automatically. (Off/D-Range Opt./Auto HDR)

Creative Style	Selects the image processing method. (Standard/Vivid/Portrait/Landscape/Sunset/Black & White)

Playback

Allows you to set playback functions.

Delete	Deletes images. (Multiple Img./All in Folder/All in Date Rng.)
Slide Show	Plays back images automatically. (Interval/Movie Type/Repeat)
Still/Movie Select	Selects a still image or movie to play back. (Still/Movie)
Image Index	Selects the number of images to be displayed on the index screen. (6 Images/12 Images)
Select Folder	Selects the folder of still images to play back.
Select Date	Selects the date of movies to play back.
Rotate	Rotates images.
Protect	Protects images, or cancels the protection. (Multiple Img./Cancel All Images/Cancel All Movies)
⊕ Enlarge Image	Enlarges the image.
Volume Settings	Sets the sound volume of movies.
Specify Printing	Selects the images to print, or makes printing settings. (Multiple Img./Cancel All)
Display Contents	Switches the information to be displayed on the playback screen. (Display Info./Histogram/No Disp. Info.)

Setup

Allows you to make more detailed shooting settings, or change the camera settings.

Shooting Settings	
AF Illuminator	Sets the AF illuminator to assist auto-focusing in dim places. (Auto/Off)
Red Eye Reduction	Provides pre-flash before shooting when using the flash, to prevent eyes from being shot in red. (On/Off)

Auto Review	Sets the display time of the image right after shooting. (10 Sec/5 Sec/2 Sec/Off)
Grid Line	Turns on the grid line that helps you to adjust the composition of images. (On/Off)
Histogram	Displays the histogram of the luminance distribution. (On/Off)
MF Assist	Displays an enlarged image when focusing manually. (On/Off)
Color Space	Changes the range of color reproduction. (sRGB/AdobeRGB)
SteadyShot	Sets camera shake compensation. (On/Off)
Release w/oLens	Sets whether or not to release the shutter when there is no lens. (Enable/Disable)
Long Exposure NR	Sets the noise reduction processing for long exposure shootings. (On/Off)
High ISO NR	Sets the noise reduction processing for high ISO sensitivity shootings. (Auto/Weak)
Movie Audio Rec	Sets the sound for movie recording. (On/Off)
Main Settings	
Beep	Selects the sound produced when you operate the camera. (AF Sound/High/Low/Off)
Language	Selects the language used on the screen.
Date/Time Setup	Sets the date and time.
Area Setting	Selects the area where you are using the camera.
Help Guide Display	Turns the Help Guide on or off. (On/Off)
Power Save	Sets the time to turn the camera to the power save mode. (1 Min/5 Min/10 Min/30 Min)
LCD Brightness	Sets the brightness of the LCD monitor. (Auto/Manual/Sunny Weather)

Display Color	Selects the color of the LCD monitor. (Black/White/Blue/Pink)
Wide Image	Selects a method to display wide images. (Full Screen/Normal)
Playback Display	Selects the method used to play back portrait images. (Auto Rotate/Manual Rotate)
CTRL FOR HDMI	Sets whether or not to operate the camera with an HDMI-compliant TV's Remote Control. (On/Off)
USB Connection	Selects the method used for a USB connection. (Mass Storage/PTP)
Cleaning Mode	Allows you to clean the image sensor.
Version	Displays the version of the camera and the lens.
Demo Mode	Sets whether or not to display the demonstration with movies. (On/Off)
Reset Default	Resets the camera to the factory-settings.
Memory Card Tool	
Format	Formats the memory card.
File Number	Selects the method used for assigning file numbers to images. (Series/Reset)
Folder Name	Selects the folder name format. (Standard Form/Date Form)
Select Shoot. Folder	Selects the recording folder.
New Folder	Creates a new folder.
Recover Image DB	Repairs the image database file of movies when inconsistencies are found.
Display Card Space	Displays the remaining recording time of movies and the recordable number of still images on the memory card.
Eye-Fi Setup*	
Upload Settings	Sets the upload function of the camera when an Eye-Fi card is used. (On/Off)

* Appears when an Eye-Fi card (sold separately) is inserted in the camera. Do not use an Eye-Fi card inserted in the camera on an airplane. If there is an Eye-Fi card inserted in the camera, set [Upload Settings] to [Off].

Eye-Fi cards can be used only in the countries/regions where they were purchased. Use Eye-Fi cards in accordance with the law of the countries/regions where you purchased the card.
NEX-5C/3C do not have this function.

Functions available for each shooting mode

The functions you can use depend on the selected shooting mode.
In the table below, ✓ indicates the function available. – indicates the function not available.
The functions you cannot use are displayed in gray on the screen.

Shoot Mode		Exposure Comp.	Self-timer	Continuous Adv.	Face Detection	Smile Shutter
Intelligent Auto		–	✓	✓	✓	✓
Sweep Panorama		✓	–	–	–	–
Anti Motion Blur		✓	–	–	✓	–
Scene Selection		–	✓	–	✓	✓
		–	✓	✓	✓	✓
		–	✓	–	✓	✓
		–	✓	–	✓	✓
		–	✓	–	✓	✓
		–	✓	–	✓	✓
		–	–	–	✓	–
		–	✓	–	✓	✓
Program Auto		✓	✓	✓	✓	✓
Aperture Priority		✓	✓	✓	✓	✓
Shutter Priority		✓	✓	✓	✓	✓
Manual Exposure		–	✓	✓	✓	✓

Note

- The functions available may be limited also by conditions other than the shooting mode.

Flash modes available

The flash modes you can select depend on the shooting mode and functions selected.
In the table below, ✓ indicates the function available. – indicates the function not available.
The flash modes you cannot select are displayed in gray on the screen.

Shoot Mode		Off	Autoflash	Fill-flash	Slow Sync.	Rear Sync.
Intelligent Auto		✓	✓	–	–	–
Sweep Panorama		✓	–	–	–	–
Anti Motion Blur		✓	–	–	–	–
Scene Selection		✓	✓	✓	–	–
		✓	–	✓	–	–
		✓	✓	✓	–	–
		✓	–	✓	–	–
		✓	–	✓	–	–
		✓	–	–	–	–
		✓	–	–	–	–
		–	–	–	✓	–
Program Auto		–	–	✓	✓	✓
Aperture Priority		–	–	✓	✓	✓
Shutter Priority		–	–	✓	✓	✓
Manual Exposure		–	–	✓	✓	✓

Notes

- The flash modes may be limited also by conditions other than the shooting mode.
- Even if you select a workable flash mode, the flash does not fire unless it is raised.
- [Autoflash] can be selected when [Shoot Mode] is set to [Intelligent Auto] or certain [Scene Selection] modes only.

Installing the software

To utilize images recorded with the camera, the following software is provided:

- Sony Image Data Suite
  "Image Data Converter SR"
  "Image Data Lightbox SR"
- "PMB" (Picture Motion Browser) (Windows only)

Note

- Log on as Administrator.

Windows

The following computer environment is recommended when using the supplied software and importing images via a USB connection.

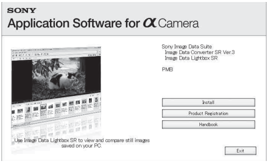
OS (pre-installed)	Microsoft Windows XP*[1] SP3/Windows Vista*[2] SP2/ Windows 7
"PMB"	**CPU:** Intel Pentium III 800 MHz or faster (NEX-5/5C: For playing/editing the High Definition movies: Intel Core Duo 1.66 GHz or faster/Intel Core 2 Duo 1.66 GHz or faster NEX-3/3C: For playing/editing the movies: Intel Core Duo 1.66 GHz or faster /Intel Core 2 Duo 1.20 GHz or faster) **Memory:** 512 MB or more (For playing/editing the High Definition movies: 1 GB or more) **Hard Disk:** Disk space required for installation—approximately 500 MB **Display:** Screen resolution—1024 × 768 dots or more
"Image Data Converter SR Ver.3"/"Image Data Lightbox SR"	**CPU/Memory:** Pentium 4 or faster/1 GB or more **Display:** 1024 × 768 dots or more

*[1] 64-bit editions and Starter (Edition) are not supported. Windows Image Mastering API (IMAPI) Ver.2.0 or later is required to use the function for creating discs.

*[2] Starter (Edition) is not supported.

1 Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.

The installation menu screen appears.



2 Click [Install].

- Make sure that both “Sony Image Data Suite” and “PMB” are checked and follow the instructions on the screen.
- Connect the camera to the computer during the procedure following the instructions on the screen.
- When the restarting confirmation message appears, restart the computer following the instructions on the screen.
- DirectX may be installed depending on the system environment of your computer.

3 Remove the CD-ROM after the installation is complete.

The software is installed and shortcut icons appear on the desktop.

Note

- If “PMB” has already been installed on the computer, and the version number of the previously installed “PMB” is lower than that of the “PMB” on the CD-ROM (supplied), install “PMB” also from the CD-ROM (supplied).

Macintosh

The following computer environment is recommended when using the supplied software and importing images via a USB connection.

OS (pre-installed)	**USB Connection:** Mac OS X (v10.3 to v10.6) **“Image Data Converter SR Ver.3”/“Image Data Lightbox SR”:** Mac OS X v10.4/Mac OS X v10.5/ Mac OS X v10.6 (Snow Leopard)
“Image Data Converter SR Ver.3”/“Image Data Lightbox SR”	**CPU:** Power PC G4/G5 series (1.0 GHz or faster is recommended)/Intel Core Solo/Core Duo/Core 2 Duo or faster **Memory:** 1 GB or more is recommended. **Display:** 1024 × 768 dots or more

1 Turn on your Macintosh computer, and insert the CD-ROM (supplied) into the CD-ROM drive.

2 Double-click the CD-ROM icon.

3 Copy the [IDS_INST.pkg] file in the [MAC] folder to the hard disk icon.

4 Double-click the [IDS_INST.pkg] file in the copy-to folder.
- Follow the instructions on the screen to complete the installation.

What you can do with the supplied software

"PMB"

With "PMB" you can do the following, etc.:
- Import images shot with the camera and display them on the computer.
- Organize images on the computer on a calendar by shooting date to view them.
- Print or save still images with the date.
- Create a data disc using a CD burner drive or DVD burner drive.

For details on "PMB," refer to "PMB Help".
To start Help, click (PMB Help) displayed on the desktop after installation. Or, from the start menu, click [Start] → [All Programs] → [PMB] → [PMB Help].

The support information for the "PMB" (English only):
http://www.sony.co.jp/pmb-se/

Note

- "PMB" is not compatible with Macintosh computers.

"Image Data Converter SR"/"Image Data Lightbox SR"

With "Image Data Converter SR," you can edit images recorded in RAW format with various corrections, such as tone curve, and sharpness.
With "Image Data Lightbox SR," you can display and compare RAW/JPEG images recorded with this camera.

For details on “Image Data Converter SR” and “Image Data Lightbox SR,” refer to Help.
To start Help, click [Start] → [All Programs] → [Sony Image Data Suite] → [Help] → [Image Data Converter SR Ver.3] or [Image Data Lightbox SR].

The support information for the “Sony Image Data Suite” (English only):
http://www.sony.co.jp/ids-se/

Creating a movie disc (NEX-5/5C)

You can create a disc from AVCHD format movies recorded on the camera. Select the method that best suits your disc player. Use “PMB” to import AVCHD format movies to a computer. See “PMB Help” for details on creating a disc using “PMB.”

Player	Method	Disc type
Blu-ray disc playback devices (Blu-ray disc player, PlayStation®3, etc.)	Create a Blu-ray disc of movies and photos imported to a computer using “PMB.”	Blu-ray
AVCHD format playback devices (Sony Blu-ray disc player, PlayStation®3, etc.)	Create an AVCHD format disc of movies and photos imported to a computer using “PMB.”	AVCHD
	Creating an AVCHD format disc with a DVD writer/recorder other than DVDirect Express.	
Ordinary DVD playback devices (DVD player, DVD playable computer, etc.)	Create a standard definition image quality (STD) disc of movies and photos imported to a computer using “PMB.”	STD

Notes

- If you use a Sony DVDirect (DVD Writer), you can transfer data by inserting a memory card into the memory card slot of the DVD writer, or connecting your camera to the DVD writer with a USB cable.
- When you use Sony DVDirect (DVD writer), make sure that the version of DVD writer’s firmware is the latest.
  For details, refer to the following URL:
  http://sony.storagesupport.com/

Characteristics of each type of disc

A Blu-ray disc enables you to record high definition image quality (HD) movies of a longer duration than DVD discs.

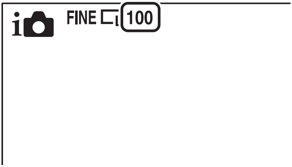
High definition image quality (HD) movie can be recorded on DVD media, such as DVD-R discs, and a high definition image quality (HD) disc is created.

- You can play a high definition image quality (HD) disc on AVCHD format playback devices, such as a Sony Blu-ray disc player and a PlayStation®3. You cannot play the disc on ordinary DVD players.

Standard definition image quality (STD) movie converted from high definition image quality (HD) movie can be recorded on DVD media, such as DVD-R discs, and a standard image quality (STD) disc is created.

Checking the number of recordable images

Once you insert a memory card into the camera and set the power switch to ON, the number of images that can be recorded (should you continue to shoot using the current settings) is displayed on the LCD monitor.



Notes

- When “0” (the number of recordable images) flashes in yellow, the memory card is full. Replace the memory card with another one, or delete images in the current memory card (page 30).
- When “NO CARD” (the number of recordable images) flashes in yellow, it means no memory card has been inserted. Insert a memory card.

Number of still images and time of movies that can be recorded on a memory card

Still images

The table shows the approximate number of still images that can be recorded on a memory card formatted with this camera. The values are defined using Sony standard memory cards for testing. The values may vary depending on the shooting conditions.

Image size: L 14M
Aspect ratio: 3:2*

(Units: images)

Quality \ Capacity	2GB	4GB	8GB	16GB	32GB
Standard	433	875	1778	3626	7172
Fine	305	618	1258	2569	5083
RAW & JPEG	84	176	362	745	1478
RAW	122	251	514	1054	2089

* When [Aspect Ratio] is set to [16:9], you can record more images than the numbers shown in the table above (except for [RAW]).

Movies

The table below shows the approximate recording times available. These are the total times for all movie files. Continuous recording is possible for approximately 29 minutes.

(Units: hour:minute:second)

File format (Image size) \ Capacity	2GB	4GB	8GB	16GB	32GB
AVCHD (1920×1080)*	0:14:00	0:28:30	0:58:10	1:58:50	3:55:20
MP4 (1440×1080)*	0:20:40	0:41:40	1:24:40	2:52:30	5:41:00
MP4 (1280×720 (Fine))**	0:27:00	0:54:30	1:50:30	3:45:10	7:25:10

* NEX-5/5C

** NEX-3/3C

Number of still images that can be recorded using a battery pack

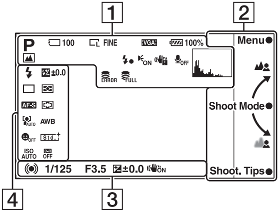
The approximate number of images that can be recorded is 330 images when you use the camera with the battery pack (supplied) at full capacity.
Note that the actual numbers may be less depending on the conditions of use.

- The number is calculated with a battery pack at full capacity and in the following situation:
  - At an ambient temperature of 25°C (77°F).
  - [Quality] is set to [Fine].
  - [Autofocus Mode] is set to [Single-shot AF].
  - Shooting once every 30 seconds.
  - The flash strobes once every two times.
  - The power turns on and off once every ten times.
  - Using the battery pack that is charged for an hour after the CHARGE lamp goes out.
  - Using Sony “Memory Stick PRO Duo” media (sold separately).
- The measurement method is based on the CIPA standard.
  (CIPA: Camera & Imaging Products Association)

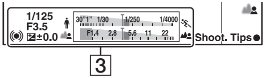
List of icons on the LCD monitor

Icons are displayed on the screen to indicate the camera status.
You can change the screen display using DISP (Display Contents) on the control wheel.

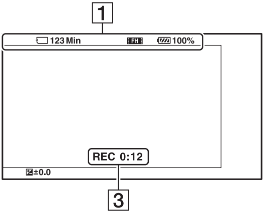
Shooting standby



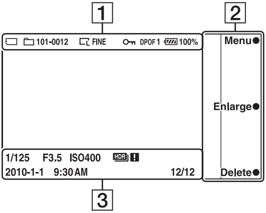
Graphic display



Movie recording



Playback



1

Display	Indication
P A S M	Shooting mode
	Scene Selection
WIDE STD	Image size/Aspect ratio of still images
RAW RAW+J FINE STD	Image quality of still images
100	Number of recordable still images
FH 1080 VGA 720 FINE 720 STD	Image size of movies
OFF	Memory card/Upload
123 Min	Recordable time of movies

Others

Display	Indication
100%	Remaining battery
	Scene Recognition icons
	Flash charge in progress
ON	AF illuminator
OFF	Does not record sound during movie recording
	Camera shake warning
	Overheating warning
FULL ERROR	Database file full/ Database file error
	Histogram
101-0012	Playback folder – File number
	Protect
DPOF 1	Print order and number of copies

2

Display	Indication
Menu ● Shoot Mode Shoot. Tips ●	Soft keys

3

Display	Indication
● (●) ( )	Focus status
1/125	Shutter speed
F3.5	Aperture value
M.M ±0.0	Metered manual
±0.0	Exposure compensation
5 60 250 1000	Shutter speed indicator
1.4 2.8 5.6	Aperture indicator
REC 0:12	Recording time of the movie (m:s)
2010-1-1 9:30AM	Recorded date/time of the image
12/12	Image number/ Number of images recorded in the date or selected folder
ON OFF	SteadyShot
HDR !	Appears when HDR did not work on the image.

4

Display	Indication
AUTO SLOW REAR	Flash Mode/Red Eye Reduction

Display	Indication
C10 C2 C3 C5 BRK C 0.3EV BRK C 0.7EV	Drive Mode
DMF AF-S AF-C MF	Focus mode
±0.0	Flash compensation
	Metering Mode
	Focus area mode
OFF AUTO	Face Detection
OFF	Smile Shutter
ISO AUTO	ISO
AWB WB 7500K G9	White Balance
Std. Vivid Port. Land. Sunset B/W	Creative Style
D-R OFF DRO AUTO HDR AUTO	DRO/Auto HDR

Display	Indication
	Smile detection sensitivity indicator

Others

Learning more about the camera (α Handbook)

"α Handbook," which explains how to use the camera in detail, is included on the CD-ROM (supplied). Refer to it for in-depth instructions on the many functions of the camera.

For Windows users

1. Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.
2. Click [Handbook].
3. Click [Install].
4. Start "α Handbook" from the shortcut on the desktop.

For Macintosh users

1. Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.
2. Select the [Handbook] folder and copy "Handbook.pdf" stored in the [GB] folder to your computer.
3. After copying is complete, double-click "Handbook.pdf."

Troubleshooting

If you experience trouble with the camera, try the following solutions.

1 Check the items on pages 69 to 72. Also refer to "α Handbook" (PDF).

2 Remove the battery pack, wait for about one minute, re-insert the battery pack, then turn on the power.

3 Reset the settings (page 55).

4 Consult your Sony dealer or local authorized Sony service facility.

Battery pack and power

The battery pack cannot be installed.

- When you insert the battery pack, use the tip of the battery pack to push the lock lever (page 17).
- You can use an NP-FW50 battery pack only. Make sure that the battery is NP-FW50.

The remaining battery indicator is incorrect, or sufficient remaining battery indicator is displayed but the power runs out too quickly.

- This phenomenon occurs when you use the camera in an extremely hot or cold location.
- The battery pack is discharged. Install a charged battery pack (page 16).
- The battery pack is dead. Replace it with a new one.

Cannot turn on the camera.

- Install the battery pack correctly (page 17).
- The battery pack is discharged. Install a charged battery pack (page 16).
- The battery pack is dead. Replace it with a new one.

The power turns off suddenly.

- When the camera or battery pack is too warm, the camera displays a warning message and turns off automatically to protect the camera.

- If you do not operate the camera for given period of time, the camera turns to power saving mode. To cancel the power save, operate the camera, such as pressing the shutter button halfway down.

The CHARGE lamp flashes when charging the battery pack.

- You can use an NP-FW50 battery pack only. Make sure that the battery is NP-FW50.
- If you charge a battery pack that has not been used for a long time, the CHARGE lamp may flash.
- The CHARGE lamp flashes in two ways, fast (about 0.15-second intervals) and slow (about 1.5-second intervals). If it is flashing fast, remove the battery pack and reattach the same battery pack securely. If the CHARGE lamp flashes fast again, it suggests that there is something wrong with the battery pack. Slow flashing indicates that charging is suspended because the ambient temperature is outside the suitable range for charging the battery pack. Charging will resume and the CHARGE lamp will be lit when the ambient temperature returns to within the suitable temperature. Charge the battery pack under the suitable temperatures between 10 °C and 30 °C (50 °F and 86 °F).

Shooting images

Nothing is displayed on the LCD monitor when the power is turned on.

- If you do not operate the camera for given period of time, the camera turns to power saving mode. To cancel the power save, operate the camera, such as pressing the shutter button halfway down.

The shutter does not release.

- You are using a memory card with a write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position.
- Check the free capacity of the memory card.
- You cannot record images while charging the flash.
- The lens is not attached properly. Attach the lens properly (page 19).

Recording takes a long time.

- The noise reduction function is turned on. This is not a malfunction.
- You are shooting in RAW mode. Since the RAW data file is large, the RAW mode shooting may take time.
- The Auto HDR is processing an image.

The image is out of focus.

- The subject is too close. Check the minimum focal distance of the lens.

- You are shooting in manual focus mode. Set [AF/MF Select] to [Autofocus].
- Ambient light is insufficient.
- The subject may require special focusing. Use the [Flexible Spot] or manual focus function.

The flash does not work.

- Raise the flash (page 23).
- The flash is not attached correctly. Reattach the flash (page 23).
- You cannot use a flash with the following shooting mode:
  - [Bracket: Cont.]
  - [Sweep Panorama]
  - [Night View] and [Hand-held Twilight] in [Scene Selection]
  - [Anti Motion Blur]
  - Movie recording

Fuzzy white circular spots appear on images shot using the flash.

- Particles (dust, pollen, etc.) in the air reflected the flash light and appeared on the image. This is not a malfunction.

The flash takes too long to recharge.

- The flash has been fired in succession in a short period. When the flash has been fired in succession, the recharging process may take longer than usual to avoid overheating of the flash.

The image taken with the flash is too dark.

- If the subject is beyond the flash range (the distance that the flash can reach), the pictures will be dark because the flash light does not reach the subject. If the ISO is changed, the flash range also changes with it.

The date and time are recorded incorrectly.

- Set the correct date and time (page 25).
- The area selected with [Area Setting] is different from the actual area. Set the actual area by selecting [Menu] → [Setup] → [Area Setting].

The aperture value and/or shutter speed flashes when you press the shutter button halfway down.

- Since the subject is too bright or too dark, it is beyond the available range of the camera. Adjust the setting again.

The image is whitish (Flare).

Blurring of light appears on the image (Ghosting).

- The picture was taken under a strong light source, and excessive light has entered the lens. When using the zoom lens, attach a lens hood.

The corners of the picture are too dark.

- If any filter or hood is used, take it off and try shooting again. Depending on the thickness of the filter and improper attachment of the hood, the filter or the hood may partially appear on the image. The optical properties of some lenses may cause the periphery of the image to appear too dark (insufficient light).

The eyes of the subject come out red.

- Activate the Red Eye Reduction function.
- Get close to the subject, and shoot the subject within the flash range (page 36) using the flash.

Dots appear and remain on the LCD monitor.

- This is not a malfunction. These dots are not recorded (page 73).

The image is blurred.

- The picture was taken in a dark location without the flash, resulting in camera shake. The use of a tripod or the flash is recommended (page 23). [Hand-held Twilight] in [Scene Selection] (page 40) and [Anti Motion Blur] (page 40) are also effective in reducing blur.

The exposure value is flashing on the LCD monitor.

- The subject is too bright or too dark for the metering range of the camera.

Viewing images

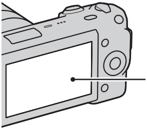
Images cannot be played back.

- The folder/file name has been changed on your computer.
- When an image file has been processed by a computer or when the image file was recorded using a model other than that of your camera, playback on your camera is not guaranteed.
- The camera is in USB mode. Delete the USB connection.

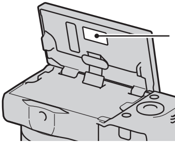
Precautions

Notes on the LCD monitor and lens

- The LCD monitor is manufactured using extremely high-precision technology so over 99.99 % of the pixels are operational for effective use. However, there may be some tiny black points and/or bright points (white, red, blue or green in color) that constantly appear on the LCD monitor. These points are normal in the manufacturing process and do not affect the images in any way.



- Do not hold the camera by taking hold of the LCD monitor.
- Do not expose the camera to direct sunlight. If sunlight is focused on a nearby object, it may cause a fire. When you must place the camera under direct sunlight, attach the lens cap.
- A magnet is attached to the back of the LCD monitor. Do not put objects that are affected by magnetic fields, such as a floppy disk or a credit card, between the LCD monitor and the camera body.



- Images may trail across on the LCD monitor in a cold location. This is not a malfunction. When turning on the camera in a cold location, the LCD monitor may become temporarily dark.
- Do not press against the LCD monitor. The monitor may be discolored and that may cause a malfunction.

Do not use/store the camera in the following places

- In an extremely hot, dry or humid place
  In places such as in a car parked in the sun, the camera body may become deformed and this may cause a malfunction.
- Storing under direct sunlight or near a heater
  The camera body may become discolored or deformed, and this may cause a malfunction.
- In a location subject to rocking vibration
- Near strong magnetic place
- In sandy or dusty places
  Be careful not to let sand or dust get into the camera. This may cause the camera to malfunction,

and in some cases this malfunction cannot be repaired.

On storing

Be sure to attach the lens cap when not using the camera.

On operating temperatures

Your camera is designed for use under the temperatures between 0°C and 40°C (32°F and 104°F). Shooting in extremely cold or hot places that exceed this range is not recommended.

On moisture condensation

If the camera is brought directly from a cold to a warm location, moisture may condense inside or outside the camera. This moisture condensation may cause a malfunction of the camera.

How to prevent moisture condensation

When bringing the camera from a cold place to a warm place, seal the camera in a plastic bag and allow it to adapt to conditions at the new location over about an hour.

If moisture condensation occurs

Turn off the camera and wait about an hour for the moisture to evaporate. Note that if you attempt to shoot with moisture remaining inside the lens, you will be unable to record clear images.

On the internal rechargeable battery

This camera has an internal rechargeable battery for maintaining the date and time and other settings regardless of whether the power is on or off, or the battery is installed or not. This rechargeable battery is continually charged as long as you are using the camera. However, if you use the camera for only short periods, it discharges gradually, and if you do not use the camera at all for about three months it becomes completely discharged. In this case, be sure to charge this rechargeable battery before using the camera. However, even if this rechargeable battery is not charged, you can still use the camera as long as you do not record the date and time. If the camera resets the settings to the defaults each time you charge the battery, the internal rechargeable battery may be dead. Consult your Sony dealer or local authorized Sony service facility.

Charging method of the internal rechargeable battery

Insert a charged battery pack into the camera, or connect the camera to a wall outlet (wall socket) using the AC Adaptor (sold separately), and leave the camera for 24 hours or more with the power off.

On memory cards

Do not attach a label, etc. on a memory card or a card adaptor. This may cause a malfunction.

Notes on recording/ playback

- When you use a memory card with this camera for the first time, it is recommended to format the card using the camera for stable performance of the memory card before shooting. Note that

formatting permanently erases all data on the memory card, and is unrecoverable. Save precious data on a computer, etc.

- If you repeatedly record/delete images, fragmentation of data may occur on the memory card. Movies may not be able to be saved or recorded. In such a case, save your images to a computer or other storage location, then format the memory card.
- The recorded contents cannot be compensated for even if recording or playback is not possible due to a malfunction of the camera or memory card, etc.
- To avoid the potential risk of data loss, always copy (back up) data to other medium.
- Before you record one-time events, make a trial recording to make sure that the camera is working correctly.
- This camera is neither dust-proof, nor splash-proof, nor water-proof.
- Do not aim the camera at the sun or other bright light. It may cause the malfunction of the camera.
- Do not look at the sun or a strong light through a removed lens. This may cause irrecoverable damage to your eyes. Or it may cause a malfunction of the lens.
- Do not use the camera near a location that generates strong radio waves or emits radiation. The camera may not be able to record or play back properly.
- Using the camera in sandy or dusty locations may cause malfunctions.
- If moisture condensation occurs, remove it before using the camera (page 74).
- Do not shake or strike the camera. In addition to malfunctions and an inability to record images, this may render the memory card unusable, or cause image data breakdown, damage or loss.
- Clean the flash surface before use. The heat of flash emission may cause dirt on the flash surface to become discolored or to stick to the flash surface, resulting in insufficient light emission.
- Keep the camera, supplied accessories, etc., out of the reach of children. A memory card, etc., may be swallowed. If such problem occurs, consult a doctor immediately.

Notes when playing movies on other devices (NEX-5/5C)

- This camera uses MPEG-4 AVC/H.264 High Profile for AVCHD format recording. Movies recorded in AVCHD format with this camera cannot be played by the following devices.
  – Other devices compatible with AVCHD format that does not support High Profile
  – Devices incompatible with the AVCHD format
- This camera also uses MPEG-4 AVC/H.264 Main Profile for MP4 format recording. For this reason, movies recorded in MP4 format with this camera cannot be played on devices other than those that support MPEG-4 AVC/H.264.

• Discs recorded with HD (high definition) image quality can be played back only on AVCHD format-compatible devices. DVD-based players or recorders cannot play back HD image quality discs, as they are incompatible with the AVCHD format. Also, DVD-based players or recorders may fail to eject HD image quality discs.

Warning on copyright

Television programs, films, videotapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provisions of the copyright laws.

The pictures used in this manual

The photographs used as examples of pictures in this manual are reproduced images, and are not actual images shot using this camera.

On the data specifications described in this manual

The data on performance and specifications is defined under the following conditions, except as described in this manual: at an ordinary ambient temperature of 25ºC (77°F), and using a battery pack that is charged for an hour after the CHARGE lamp goes out.

Specifications

Camera

[System]

Camera type: Interchangeable lens digital camera
Lens: E-mount lens

[Image sensor]

Image sensor: 23.4 × 15.6 mm (APS-C format) CMOS image sensor
Total pixel number of image sensor: Approx. 14 600 000 pixels
Effective pixel number of camera: Approx. 14 200 000 pixels

[Anti-dust]

System: Charge protection coating on Low-Pass Filter and electromagnetic vibration mechanism

[Auto focus system]

System: Contrast detection system
Sensitivity range: 0 EV to 20 EV (at ISO 100 equivalent, with F2.8 lens)

[Exposure control]

Metering method: 49-segment metering by the image sensor
Metering range: 0 EV to 20 EV (at ISO 100 equivalent, with F2.8 lens)
ISO sensitivity (Recommended exposure index): Auto, ISO 200 to 12800
Exposure compensation: ±2.0 EV (1/3 EV step)

[Shutter]

Type: Electronically-controlled, vertical-traverse, focal-plane type
Speed range: 1/4000 second to 30 seconds, BULB, (1/3 EV step)
Flash sync speed: 1/160 second

[Recording media]

"Memory Stick PRO Duo" media, SD card

[LCD monitor]

LCD panel: 7.5 cm (3.0 type) TFT drive
Total number of dots: 921 600 (640 × 3 (RGB) × 480) dots

[Input/output terminals]

USB: miniB
HDMI: HDMI type C minijack

[Power]

Used battery pack: Rechargeable battery pack NP-FW50

[Others]

Exif Print: Compatible
PRINT Image Matching III: Compatible
Dimensions:
NEX-5/5C:
Approx. 110.8 × 58.8 × 38.2 mm (4 3/8 × 2 3/8 × 1 9/16 inches) (W/H/D, excluding protrusions)
NEX-3/3C:
Approx. 117.2 × 62.6 × 33.4 mm (4 5/8 × 2 1/2 × 1 3/8 inches) (W/H/D, excluding protrusions)
Mass:
NEX-5/5C:
Approx. 287 g (10.1 oz) (including battery and "Memory Stick PRO Duo" media)
Approx. 229 g (8.1 oz) (camera only)
NEX-3/3C:
Approx. 297 g (10.5 oz) (including battery and "Memory Stick PRO Duo" media)
Approx. 239 g (8.4 oz) (camera only)
Operating temperature: 0°C to 40°C (32°F to 104°F)
File format:
Still image: JPEG (DCF Ver. 2.0, Exif Ver. 2.3, MPF Baseline) compliant, DPOF compatible
NEX-5/5C:
Movie (AVCHD format): AVCHD Ver. 1.0 compliant
Video: MPEG-4 AVC/H.264
Audio: Dolby Digital 2ch, equipped with Dolby Digital Stereo Creator
- Manufactured under license from Dolby Laboratories.

Movie (MP4 format):
Video: MPEG-4 AVC/H.264
Audio: MPEG-4 AAC-LC 2ch
NEX-3/3C:
Movie: MPEG-4 Visual
USB communication: Hi-Speed USB (USB 2.0 compliant)

Flash

Flash guide number: GN 7 (in meters at ISO 100)
Recycling time: Approx. 4 seconds
Flash coverage: Covering 16 mm lens (focal length that the lens indicates)
Flash compensation: ±2.0 EV (1/3 EV step)
Dimensions:
Approx. 35.9 × 23.8 × 42.7 mm (1 7/16 × 15/16 × 1 11/16 inches) (W/H/D, excluding protrusions)
Mass: Approx. 20.4 g (0.8 oz)

Lens

On the E18 – 200 mm lens, refer to the instruction manual of the E18 – 200 mm lens (supplied).

Lens	E16 mm single focus lens	E18 – 55 mm zoom lens
Camera	NEX-5A/5CA/5D/5CD/ 3A/3CA/3D/3CD	NEX-5D/5CD/5K/5CK/ 3D/3CD/3K/3CK
Equivalent 35 mm-format focal length*[1] (mm)	24	27 - 82.5
Lens groups-elements	5-5	9-11
Angle of view*[1]	83°	76° - 29°
Minimum focus*[2] (m (feet))	0.24 (0.79)	0.25 (0.82)
Maximum magnification (×)	0.078	0.3
Minimum f-stop	f/22	f/22 - f/32
Filter diameter (mm)	49	49
Dimensions (max. diameter × height) (mm (in.))	62.0 × 22.5 (2 1/2 × 29/32)	62.0 × 60.0 (2 1/2 × 2 3/8)
Mass (g (oz.))	67 (2 3/8)	194 (6 7/8)
Compensation effect*[3]	– *[4]	Approx. 4 steps

*[1] The values for equivalent 35 mm-format focal length and angle of view are based on digital cameras equipped with an APS-C sized image sensor.
*[2] Minimum focus is the shortest distance from the image sensor to the subject.
*[3] Shutter speed (differs with shooting conditions)
*[4] The optical shake compensation function is not available.

BC-VW1 Battery charger

Input rating: 100 V – 240 V AC, 50 Hz/60 Hz, 4.2 W
Output rating: 8.4 V DC, 0.28 A
Operating temperature range: 0°C to 40°C (32° to 104°F)
Storage temperature range: –20°C to +60°C (–4°F to +140°F)
Maximum dimensions: Approx. 63 × 95 × 32 mm (2 1/2 × 3 3/4 × 1 5/16 inches) (W/H/D)
Mass: Approx. 85 g (3 oz)

Rechargeable battery pack NP-FW50

Used battery: Lithium-ion battery
Maximum voltage: DC 8.4 V
Nominal voltage: DC 7.2 V
Maximum charge voltage: DC 8.4 V
Maximum charge current: 1.02 A
Capacity: Typical 7.7 Wh (1 080 mAh)
Minimum 7.3 Wh (1 020 mAh)
Maximum dimensions:
Approx. 31.8 × 18.5 × 45 mm (1 5/16 × 3/4 × 1 13/16 inches) (W/H/D)
Mass: Approx. 57 g (2.1 oz)

Design and specifications are subject to change without notice.

On focal length

The picture angle of this camera is narrower than that of a 35 mm-format film camera. You can find the approximate equivalent of the focal length of a 35 mm-format film camera, and shoot with the same picture angle, by increasing the focal length of your lens by half.
For example, by using a 50 mm lens, you can get the approximate equivalent of a 75 mm lens of a 35 mm-format film camera.

On image data compatibility

- This camera conforms with DCF (Design rule for Camera File system) universal standard established by JEITA (Japan Electronics and Information Technology Industries Association).
- Playback of images recorded with your camera on other equipment and playback of images recorded or edited with other equipment on your camera are not guaranteed.

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Others